

**Delaware Electric Cooperative**  
**Generator Interconnection Application –Long Form**  
(For Use with Generators Greater than 25 kW and have Aggregated Meters)

An applicant (Generator Owner) makes application to Delaware Electric Cooperative to install and operate a generating facility greater than 25kW interconnected with the Delaware Electric Cooperative utility system.

**Section 1, Applicant Information Directly Interconnected to the Generating System**

Is the following system: ☐ Leased or ☒ Member Owned  
Name: Lewis R Atkins Jr.  
Mailing Address: 30325 Fire Tower Road  
City: Laurel State: DE Zip Code: 19956  
Facility Location (if different from above): 30472 Fire Tower Road, Laurel, DE 19956  
Telephone (Daytime): Area Code 302 Number 258-4276 (Evening) Area Code      Number       
Delaware Electric Cooperative Account No.: 6670304  
Rate Code: 1P1

**Section 2, Aggregated Meter Information**

**The following aggregated accounts shall be ranked according to the order in which credits shall be applied**

1 - DEC Member Name Lewis R Atkins Jr. Rate Code: 1P1  
DEC Account No.: 5384204 kWh Credit Amt:      Capacity (DEC):       
2 - DEC Member Name Lewis R Atkins Jr. Rate Code: 5P6  
DEC Account No.: 6670201 kWh Credit Amt:      Capacity (DEC):       
3 - DEC Member Name      Rate Code:       
DEC Account No.:      kWh Credit Amt:      Capacity (DEC):       
4 - DEC Member Name      Rate Code:       
DEC Account No.:      kWh Credit Amt:      Capacity (DEC):

5 - DEC Member Name \_\_\_\_\_ Rate Code: \_\_\_\_\_

DEC Account No.: \_\_\_\_\_ kWh Credit Amt: \_\_\_\_\_ Capacity (DEC): \_\_\_\_\_

**Section 2, Aggregated Meter Information (continued)**

6 - DEC Member Name \_\_\_\_\_ Rate Code: \_\_\_\_\_

DEC Account No.: \_\_\_\_\_ kWh Credit Amt: \_\_\_\_\_ Capacity (DEC): \_\_\_\_\_

7 - DEC Member Name \_\_\_\_\_ Rate Code: \_\_\_\_\_

DEC Account No.: \_\_\_\_\_ kWh Credit Amt: \_\_\_\_\_ Capacity (DEC): \_\_\_\_\_

8 - DEC Member Name \_\_\_\_\_ Rate Code: \_\_\_\_\_

DEC Account No.: \_\_\_\_\_ kWh Credit Amt: \_\_\_\_\_ Capacity (DEC): \_\_\_\_\_

*Any additional meters associated with this aggregated system must be supplied on a separate sheet in the same format.*

**Section 3, Generator Type**

Is Generator powered from a Renewable Energy Source: ☒ Yes ☐ No

Type of Energy Source (if applicable): ☒ Solar ☐ Wind ☐ Hydro

Other generator energy source: ☐ Diesel, Natural Gas ☐ Diesel, Fuel Oil ☐ Other: \_\_\_\_\_

Will excess power be exported to Delaware Electric Cooperative? Yes ☒ No ☐

Total Aggregated Maximum Load: \_\_\_\_\_ kW (Typical) Maximum Export: \_\_\_\_\_ kW

**Section 4, Generator Technical Information**

Type of Generator: ☐ Synchronous ☐ Induction ☒ DC Generator or Solar with Inverter

Generator (or solar collector) Manufacturer, Model Name & Number: Axitec AC-310P-156-72S

(A copy of Generator Nameplate and Manufacturer's Specification Sheet may be substituted)  
(538 panels)

Output Power Rating in kW: 310 kW DC

Inverter Manufacturer, Model Name & Number (if used): SMA SB7700TL-US-22

(A copy of Inverter Nameplate and Manufacturer's Specification Sheet may be substituted)

(17 inverters) Rating in kW: 7.68 kW AC

Generator Characteristic Data (for rotating machines):

(Not needed if Generator Nameplate and Manufacturer's Specification Sheet is provided)

Direct Axis Synchronous Reactance,  $X_d$ : \_\_\_\_\_ P.U. Negative Sequence Reactance: \_\_\_\_\_ P.U.

Direct Axis Transient Reactance,  $X'_d$ : \_\_\_\_\_ P.U. Zero Sequence Reactance: \_\_\_\_\_ P.U.

Direct Axis Subtransient Reactance,  $X''_d$ : \_\_\_\_\_ P.U. KVA Base: \_\_\_\_\_

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## Section 5, Interconnecting Equipment Technical Data

Will an interposing transformer be used between the generator and the point of interconnection?

☐ Yes ☒ No

Transformer Data (if applicable, for Customer Owned Transformer):

(A copy of transformer Nameplate and Manufacturer's Test Report may be substituted)

Size: \_\_\_\_\_ KVA . Transformer Primary : \_\_\_\_\_ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Secondary: \_\_\_\_\_ Volts ☐ Delta ☐ Wye ☐ Wye Grounded

Transformer Impedance: \_\_\_\_\_ % on \_\_\_\_\_ KVA Base

Transformer Fuse Data (if applicable, for Customer Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

(A copy of breaker's Nameplate and Specification Sheet may be substituted)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Load Rating: \_\_\_\_\_ Interrupting Rating: \_\_\_\_\_ Trip Speed: \_\_\_\_\_  
(Amps) (Amps) (Cycles)

Circuit Breaker Protective Relays (if applicable):

(Enclose copy of any proposed Time-Overcurrent Coordination Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

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Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Style/Catalog No.: \_\_\_\_\_ Proposed Setting: \_\_\_\_\_

Current Transformer Data (if applicable):

(Enclose copy of Manufacturer's Excitation & Ratio Correction Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Accuracy Class: \_\_\_\_\_ Proposed Ratio Connection: \_\_\_\_\_/5

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Generator Disconnect Switch:

A lockable disconnect device shall be installed within 3 feet of the DEC meter and accessible at all times by DEC personnel, by and at the cost of the owner.

Manufacturer: SQD Type: fused Catalog No.: H227R Rated Volts: 240 Rated Amps: 800

Single or 3 Phase: single Mounting Location: beside utility meter within 3 feet

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**Section 8, Installation Details**

Generating System will be installed by: ☐ Owner ☒ State Licensed Electrician

Installing Electrician: Robert Miller Firm: Rob's Electric Inc. License No.: 12-002406L

Mailing Address: 156 Pleasant Cove Lane

City: Dover State: DE Zip Code: 19904

Telephone with Area Code: 302 343 9030

Installation Date: 1/4/16 - 2/15/16 Interconnection Date: 2/15/16

Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code of the municipality of Kent

Signed (Inspector): \_\_\_\_\_ Date: 2/17/16  
(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

**Section 9, Generator/Equipment Certification**

Generating systems that utilize inverter technology must be compliant with *IEEE 1547* and *Underwriters Lab. UL 1741*. Generating systems must be compliant with Delaware Electric Cooperative's "Technical Requirements for Parallel Operation of Member Owned Generation" document. **The Applicant must certify that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance. Generation cannot be turned on until a Delaware Electric Cooperative representative has performed a site visit, installed a warning label near the service meter, and has authorized the system for interconnection.**

**Section 10, Applicant Signature**

**I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct.**

Signature of Applicant: [Signature] Date: 11/17/15

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**Section 11, Approval or Non-Approval**

Delaware Electric Cooperative: ☒ Has Approved ☐ Has Not Approved this Interconnection Application.

Name : Tony Rutherford Date: 3/4/2016

Signature: Tony Rutherford  
Digitally signed by Tony Rutherford  
DN: cn=Tony Rutherford, o=DEC, ou=Delaware Electric Cooperative, c=US  
Date: 2016.03.04 12:45:00Z

Reason of Not Approving: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Approval to connect to the Company system indicates only that the minimum requirements for a safe proper interconnection have been satisfied. Such approval does not imply that the Generator Owner's facility meets all federal, state and local standards or regulations.

**Section 11, Internal Checks and Notifications**

DEC has performed a site visit and approved the system:	<input checked="" type="checkbox"/> Yes
DEC has installed a Warning Label on or near the service meter:	<input checked="" type="checkbox"/> Yes
Notify Billing Dept. of Interconnected Generation:	<input checked="" type="checkbox"/> Yes
Notify Mapping Dept. of Interconnected Generation:	<input checked="" type="checkbox"/> Yes
Notify Metering Dept. of Interconnected Generation:	<input checked="" type="checkbox"/> Yes
Notify System Protection of Interconnected Generation:	<input checked="" type="checkbox"/> Yes

**At completion send Pages 4 - 5 to Delaware Electric Cooperative, Attn: Troy Dickerson, Manager of Engineering: Phone: (302) 349-3125 Email: tdickerson@decoop.com or mail to P.O. Box 600 Greenwood, DE 19950**